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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,007	06/04/2002	Gopichandra Surnilla	202-0401	7207
7590 08/19/2004				
KOLISCH HARTWELL, P.C. 200 PACIFIC BUILDING 520 SW YAMHILL STREET PORTLAND, OR 97204		EXAMINER TRAN, BINH Q		
		ART UNIT 3748 PAPER NUMBER		

DATE MAILED: 08/19/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,007

Applicant(s)

SURNILLA, GOPICHANDRA

Examiner

BINH Q. TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7, 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, and 3-9 are rejected under 35 U.S.C. 102 (b) as being anticipated by Ma (Patent Number 6,023,929).

Regarding claims 1 and 9, Ma discloses a method for operating an engine having a first and second group of cylinders (Bank 1, and Bank2), comprising: operating in a first mode wherein the first cylinder group operates with air and substantially no injected fuel and the second cylinder group operates by combusting air and injected fuel at a lean air-fuel ratio (See col. 4, lines 1-61); providing an indication of the device temperature (See col. 5, lines 4-16); in response to said indication, disabling said first mode of operation and operating the engine in a second mode of operation (See col. 4, lines 1-67; col. 5, lines 1-16).

Regarding claim 3, Ma further discloses that the second mode of operation includes injecting and combusting fuel in said first group (See col. 4, lines 1-67; col. 5, lines 1-16).

Regarding claim 4, Ma further discloses that during said first mode, said second cylinder group combusts a lean air-fuel mixture (See col. 4, lines 1-67; col. 5, lines 1-16).

Regarding claim 5, Ma further discloses that during said first mode, said second cylinder group combusts a stoichiometric air-fuel mixture (See col. 4, lines 1-67; col. 5, lines 1-16).

Regarding claim 6, Ma further discloses that the second mode of operation includes injecting and combusting fuel in said first group at a near stoichiometric air-fuel ratio (See col. 4, lines 1-67; col. 5, lines 1-16).

Regarding claim 7, Ma further discloses that the second mode of operation includes injecting fuel in said first group (See col. 4, lines 1-67; col. 5, lines 1-16).

Regarding claim 8, Ma further discloses that the second mode of operation includes operating said second group of cylinders rich of stoichiometry, and wherein gasses from said first and second cylinder group mix (See col. 4, lines 1-67; col. 5, lines 1-16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ma in view of Adamczyk, Jr. et al. (Adamczyk) (Patent Number 5,878,567).

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Regarding claim 2, Ma discloses all the claimed limitation as discussed above except that the second mode of operation includes retarding ignition timing of cylinders in the second group.

Adamczyk teaches that it is conventional in the art, to retard ignition timing of a second group of cylinders of the engine so that to increase the temperature of the catalytic converter (See col. 6, lines 32-67; col.7, lines 1-12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to retard ignition timing of a second group of cylinders of the engine of Ma, as taught by Adamczyk for the purpose of increasing the temperature of the catalytic converter, so as to further reduce emissions in the exhaust gas of the internal combustion engine, and improve the performance and the efficiency of the emission device.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents:

Sugasawa et al. (Patent Number 4391240), Iizuka et al. (Patent Number 4467602), Grotjahn et al. (Patent Number 5647207), Iizuka et al. (Patent Number 4134261), and Cullen et al. (Patent Number 5483941) all disclose an exhaust gas purification for use with an internal combustion engine.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (703) 305-0245. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (703) 308-2623. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

A handwritten signature in black ink, appearing to read 'Binh Tran', with a long, sweeping horizontal line extending to the right.

BT
August 16, 2004

Binh Tran
Patent Examiner
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